## ABSTRACT

An object of the present invention is to provide a thermostable DNA polymerase with enhanced amplification efficiency and/or improved fidelity in polymerase chain 5 reaction (PCR), and provide a process for production thereof. More specifically, the present invention provides thermostable DNA polymerase wherein in the  $\mathrm{DX_{1}EX_{2}X_{3}X_{4}H}$  sequence (D: aspartic acid, E: glutamic acid, H: histidine,  $X_1$ ,  $X_2$ ,  $X_3$  and  $X_4$ : any amino acid) consisting 10 of  $\mathrm{DX}_1\mathrm{E}$  sequence within the EXO I region and a four amino acid length peptide adjacent to said glutamic acid(E) of thermostable DNA polymerase having 3'-5' exonuclease activity, histidine(H) has been replaced by another amino acid. 15